



1/20

39 (UPPER: SEQ ID NO.: 1)  
19 (LOWER: SEQ ID NO.: 4)

GAATTCCCCAACAGGCCAAGCTCTCCATCTAGTGGACAGGGAAAGCTAGCAGCAAACC

TTCCTTCACTACAAACTTCATTGCTTGCCAAAAGAGGTTAATTCAATGTAGACAT

119  
39

CTATGTAAGCAATTAAAAACCTATTGATGTATAAACAGTTGCATTCAATGGGGCAAC

179  
59

TAAATACATTCTAGGACTTTATAAAAGATCACTTTATTATGCACAGGGTGGAACAAAG

239  
79

ATGGATTATCAAGTGTCAAGTCCAATCTATGACATCAATTATTACATCGGAGCCCTGCM  
M D Y Q V S S P I Y D I N Y T S E P C 99  
99

FIG. 1A-1

CAAAAATCAAATGTGAAGCAAATCGCAGCCCCCTCCTGCCCTCCGCTCACTCACTGGTG 359  
 Q K I N V K Q I A A R L L P P L Y S L V 119  
 TTCACTTGGTTTGTGGCAACATGGCTGGTCATCCTCATCCTGATAAACTGCAAAAGG 419  
 F I F G F V G N M L V I L I L I N C K R 139  
 CTGAAGAGCATGACTGACATCTAACCTGGCATCTGACCTGTTTTCCTT 479  
 L K S M T D I Y L L N L A I S D L F F L 159  
 CTTACTGTCCCCCTTCTGGCTCACTATGGCTGGCCAGTGGACTTTGAAATACAATG 539  
 L T V P F W A H Y A A A Q W D F G N T M 179  
 TGTCAACTCTTGAAGGGCTCTATTATAGGCTTCTCTGGAAATCTCATCATC 599  
 C Q L L T G L Y F I G F S G I F F I I 199  
 CTCCCTGACAATCGATAAGGTACCTGGCTCCATGCTGTGTTGCTTAAAGCCAGG 659  
 L L T I D R Y L A V V H A V F A L K A R 219  
 ACGGTCAACCTTGGGGTGGTGACAAGTGTGATCACTGGGTGGCTGTTGCGTCT 719  
 T V T F G V V T S V I T W V V A V F A S 239  
 CTCCCAGGAATCATCTTACCAAGATCTCAAAAGAGGTCTTCAATTACACCTGCAGGCTCT 779  
 L P G I I F T R S Q K E G L H Y T C S S 259  
 CATTTCATACA  
 H F P Y

FIG. 1A-2

FIG. 1B-1

GAATTCCCCAACAGGCCAAGCTCTCCATCTAGGGACAGGGAGCTAGCAGCAAACC 59 (UPPER: SEQ ID NO.: 2)  
19 (LOWER: SEQ ID NO.: 5)

TTCCCTTCACTACAAACTTCATTGCTTGGCCAAGAGAGTTAATTCAATGTAGACAT 119  
39

CTATGTAGGCAATTAAAACCTATTGATGTATAAACAGTTGCATTCATGGAGGGCAAC 179  
59

TAAATACATTCTAGGACTTTATAAAAGATCACTTTTATTATGCACAGGGTGGAAACAAG 239  
79

ATGGATTATCAAGTGTCAAGTCCAATCTATGACIATCAATTATACATGGAGCCCTGC 299

M D Y Q V S S P I Y D I N Y T S E P C 99

3/20

4/20

CAAAATCAATGAGCAAATCGCAGCCCCCTCCTGCCTCCGCTACTCACTGGTG	359
Q K I N V K Q I A A R L L P P Y S L V	119
TTCATCTTGGTTGTGGCAACATGCTGGTCATCCTCATCTGATAAACTGCAAAAGG	419
F I F G F V G N M L V I L I L I N C K R	139
CTGAAGGCAATGACTGACATCTACCTGCTCACCTGCCATCTGACCTGTTTCCCT	479
L K S M T D I Y L L N L A I S D L F F L	159
CTTAAGTGTCCCCTCTGGGCTCACTATGCTGCCGCCAGTGGACTTTGGAAATACAATG	539
L T V P F W A H Y A A Q W D F G N T M	179
TGTCAACTCTGACAGGGCTTATTTAGGCTTCTCTGGAAATCTTCTTCATCATC	599
C Q L L T G L Y F I G F S G I F F I I	199
CTCCCTGACATCGATAGGTACCTGGCTCCATGCTGTGTTGCTTAAAGCCAGG	659
L L T I D R Y L A V V H A V F A L K A R	219
ACGGTCACCTTGGGTGGTACAAGTGTGATCACTGGTGGCTGTGTTGCGTCT	719
T V T F G V V T S V I T W V V A V F A S	239
CTCCCCAGGAATCATCTTACAGATCTCAAAAGAAGGTCTCATTACACCTGCAGGCT	779
L P G I I F T R S Q X E G L H Y T C S S	259
CATTTCACAGTCAATTCTGAGAATTCCAGACATTAAGATAGTCATC	839
H F P Y S Q X Q F W K N F Q T L K I V I	279

FIG. 1B-2

5/20

TTGGGGCTCCTGCCGCTTGTCACTGGCTACTCGGAAATCCTAAAACT  
L G L V L P L V M V I C Y S G I L K T 899  
CTGCTTCGGTGTGAAATGAGAACAGGGCACAGGGCTGTGAGGCTTATCTTACCATC 299  
L L R C R N E K K R H R A V R L I F T I 959  
ATGATTGTTTATTCTCTGGCTCCCTACAACATTGTCCCTCTCCTGAACACCTTC 319  
M I V Y F L F W A P Y N I V L L N T F 1019  
CAGGAATTCTTGGCCTGAATAATTGCAGTAGCTCTAACAGGTGACCAAGCTATGCAG 339  
Q E F F G L N N C S S N R L D Q A M Q 1079  
GTGACAGAGACTCTGGATGACGGCACTGCATCAACCCCATCATCTATGCCTTTGTC 359  
V T E T L G M T H C C I N P I I Y A F V 1139  
GGGGAGAAGTTCAAGAAACTACCTCTTAAGTCTTCTTCCAAAAGCACATTGCCAACGCTTC 379  
G E K F R N Y L L V F Q K H I A K R F 1199  
TGCAAAATGCTGTCTTCAAGGGCTCCAGCAAGGGCTCCGGAGCAAGCTCAGTTACACC 399  
C K C C S I F Q Q E A P E R A S S V Y T 1259  
CGATCCACTGGGAGCAGGAAATACTCTGGCTTGTGACACGGACTCAAGTGGCTGGT 419  
R S T G E Q E I S V G L \* 1319  
GACCCAGTCAGACTGGCACATGGCTTAGTTTCATACACAGCCTGGCTGGGGTNGG 439  
1379  
TTGGNNAGGTCTTTAAAGGAAGTTACTGTATAGGGTCTAAAGATTCACTCCATT 459  
479  
TATTGGCATCTGTTAAAGTAGATTAGATCCGAATTTC

FIG. 1B-3

GAATTCCCCAACAGGCCAAGCTCCATCTAGGGACAGGGAAAGCTAGGCCAAC  
59 (UPPER: SEQ ID NO. 3)  
19 (LOWER: SEQ ID NO. 6)

TTCCCTTCACTACAAACTTCATTGCTTGGCMAAAAAGAGCTTAATTCAATTGAGACAT  
119  
39

CTATGTAGGCATTAAACCTATTGATGATAAAACAGTTGCATTCAATGGAGGGCAAC  
179  
59

TAAATACATTCTAGGACTTTATAAAAGATCACTTTTATTATGACAGGGTGGAACAG  
239  
79

ATGGATTATCAAGTGTCAAAGTCCAATCTATGACATCAATTATACATGGAGCCCTGC  
299  
M D Y Q V S S P I Y D I N Y Y T S E P C 99

FIG. 1D-1

7/20

CAAAAATCAAATGTGAAGCAAATGGCAGCCCCCTCCCGCTCTGGCTACTCACTGGTG	359
Q K I N V K Q I A A R L L P P Y S L V	119
TTCATCTTGGTTGTGGCAACATGCTGGTCATCCTCATCCTGATAAACTGCCAAAGG	419
F I F G F V G N M L V I L I L I N C K R	139
CTGAAGAGCATGACTGACATCTACCTGCTCAACCTGGCCATCTGACCTGTTTCCTT	479
L K S M T D I Y L L N L A I S D L F F L	159
CTTACTGGCCCTCTGGGCTCACTATGCTGCCCAAGTGGGACTTTGGAAATAACAATG	539
L T V P F W A H Y A A Q W D F G N T M	179
TGTCAACTCTGACAGGGCTCTATTATAGGCTTCTCTGGAAATCTTCTCATCATC	599
C Q L L T G L Y F I G F F S G I F F I I	199
CTCCTGACAATCGATAAGGTACCTGGTGTGTCGCCATGCTGTGTTAACGCCAGG	659
L L T I D R Y L A V V H A V F A L K A R	219
ACGGTCACCTTGGGGTGGTGACAAGTGTGATCACCTGGTGGCTGTGTTGGTCT	719
T V T F G V V T S V I T W V V A V F A S	239
CTCCCAGGAATCATCTTACAGATCTCAAAAAGAAGGTCTTCAATTACACCTGCAGCTCT	779
L P G I I F T R S Q K E G L H Y T C S S	259
CATTTTCATACATTAAGATAAGTCACTCTGGGGCTGGTCTGGCTGGCTTGCTCATGGT	839
H F P Y I K D S H L G A G P A A C H G	279

FIG. 1D-2

8/20

CATCTGCTACTCGGGAAATCCTAAAAACTCTGCCTTCGGTGTGCGAAATGAGAAGAGGCA	899
H L L G N P K N S A S V S K *	299
CAGGGCTGTGAGGCTTATCTTCACCATCATGATTGTTTATTCTCTGGCTCCCTA	959
	319
CAACATTGTCCTTCCTGAAACACCTCCAGGAATTCTTGCCCTGAATAATTGCCAGTAG	1019
	339
CTCTAACAGGTGGACCAAGCTTATGCAAGGTGACAGAGACTCTGGATGACGGCACTGCTG	1079
	359
CATCAAACCCCATCATCTATGCCTTGTGGGGAGAAGTTCAGAAACTACCTCTTAGTCTT	1139
	379
CTTCCAAAGCACATGCCAACGCTTCTGCAAATGCTGTTCTATTTCAGCAAGAGGC	1199
	399
TCCCGAGCGAGCAAGCTCAGTTACACCCGATCCACTGGGAGCCAGGAAATACTGTGGG	1259
	419
CTTGTGACACGGACTCAAGTGGCTGGTGAACCCAGTCAGACTGGCTACATGGCTAGTT	1319
	439
TTCAACACACGGCTGGCTGGGTGGTGGNNAGGTCTTTAAAGGAAGTTACT	1379
	459
GTTATAGAGGGCTAAGATTCCATTATTCATGGCATCTGTTAAAGTAGATTAGATCC	1439
	479
GAATTTC	

FIG. 1D-3

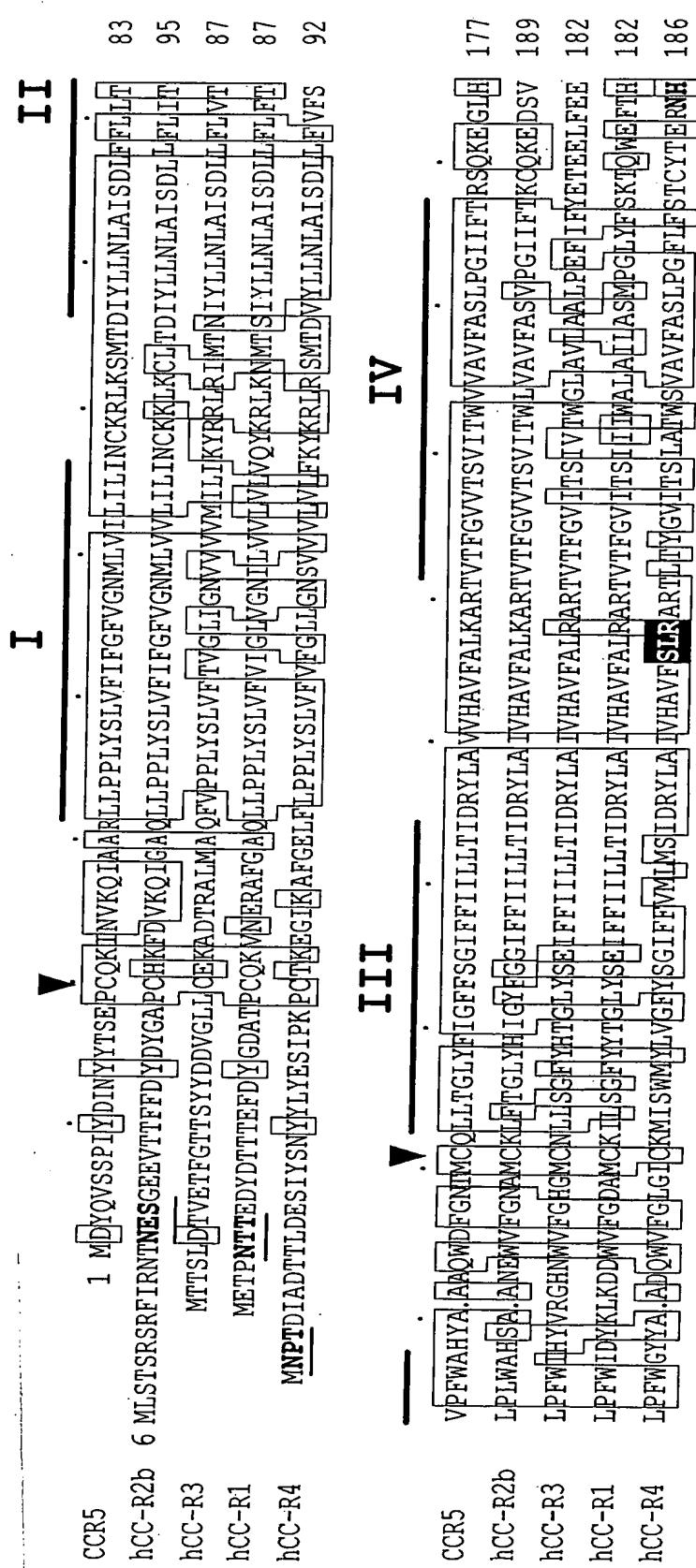


FIG. 2A

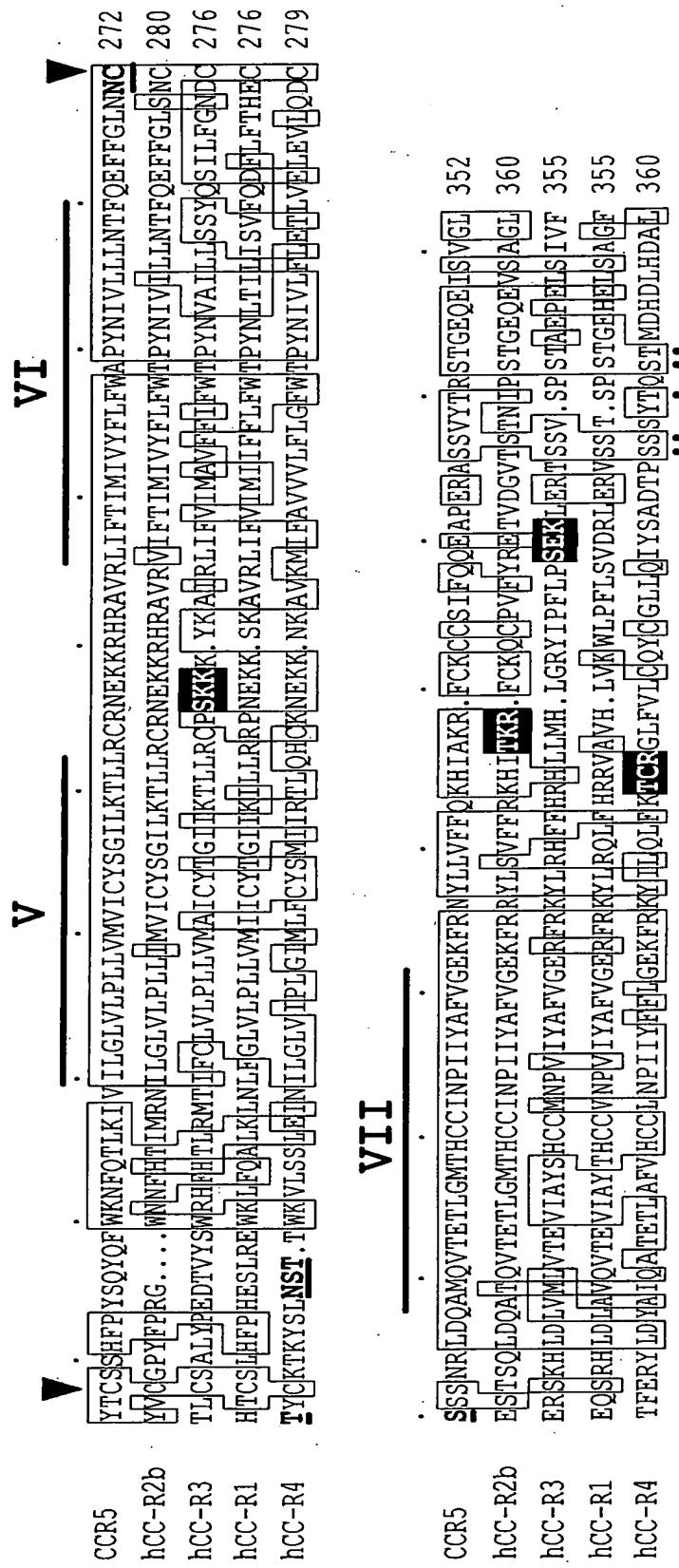


FIG. 2B

11/20

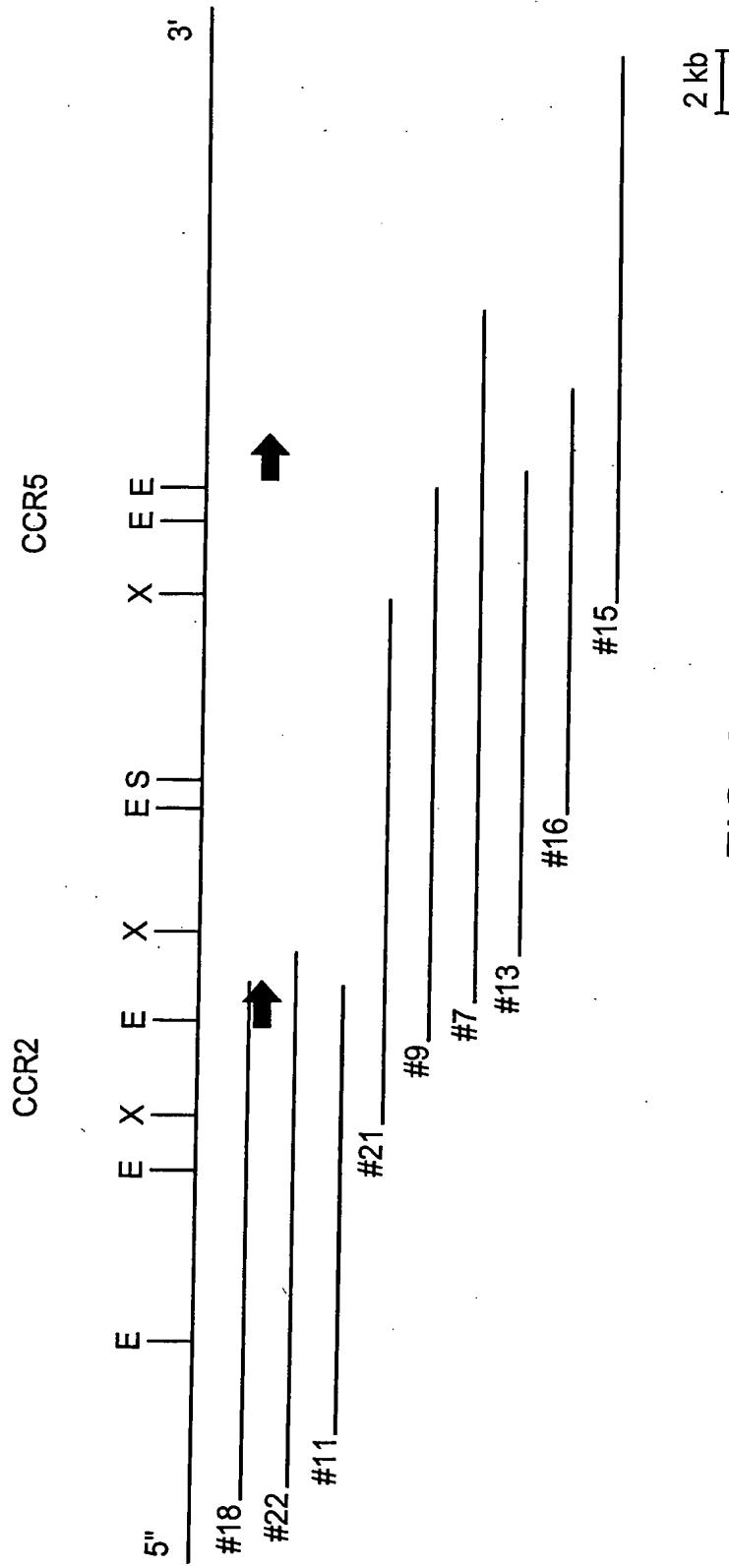


FIG. 3

12/20

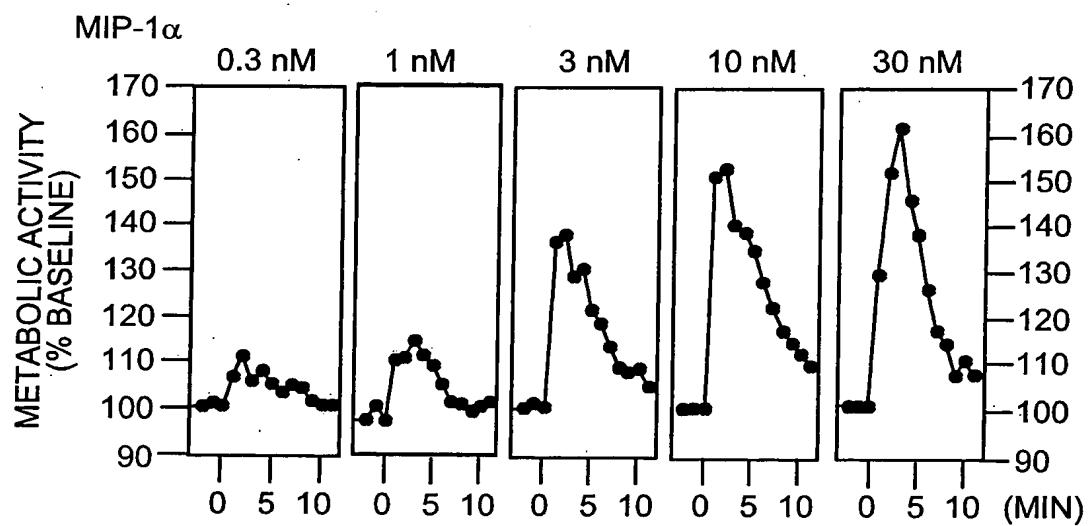


FIG. 4A

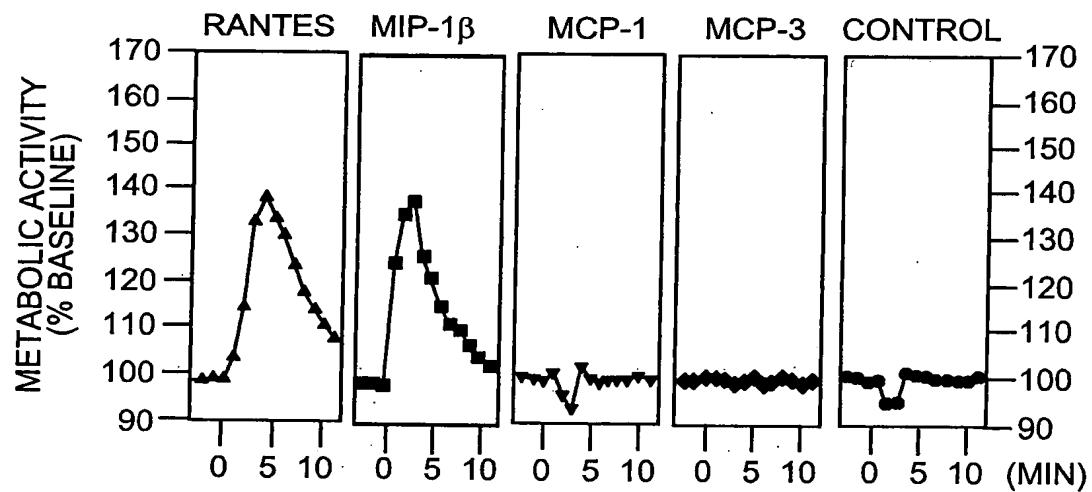


FIG. 4B

13/20

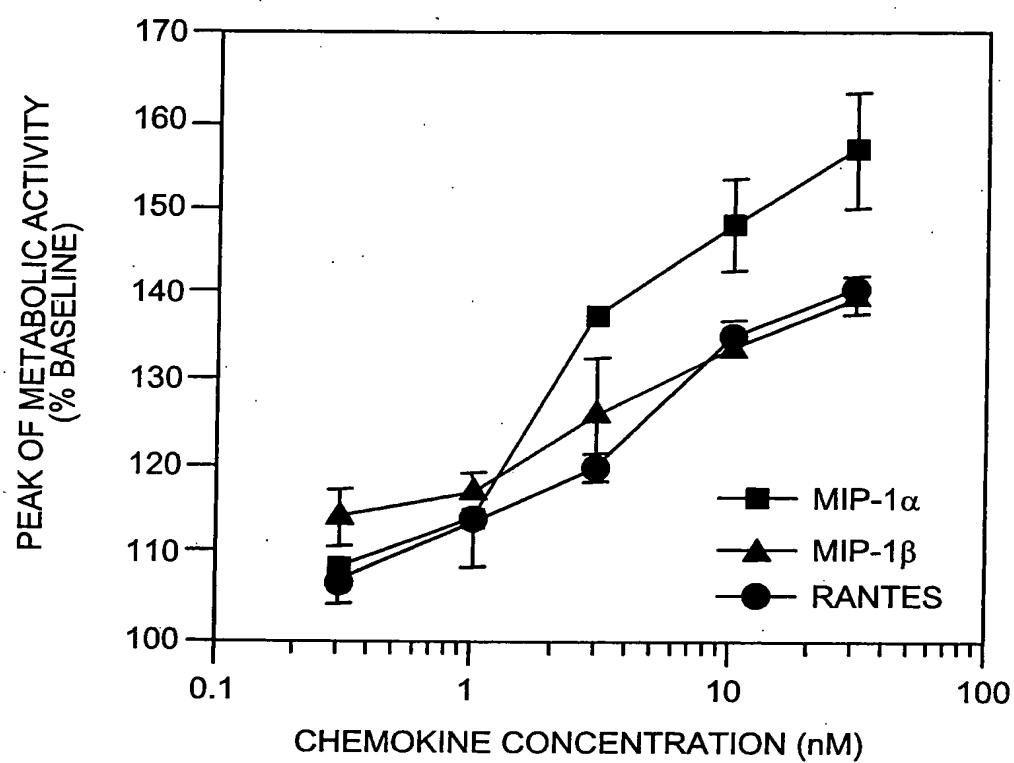


FIG. 4C

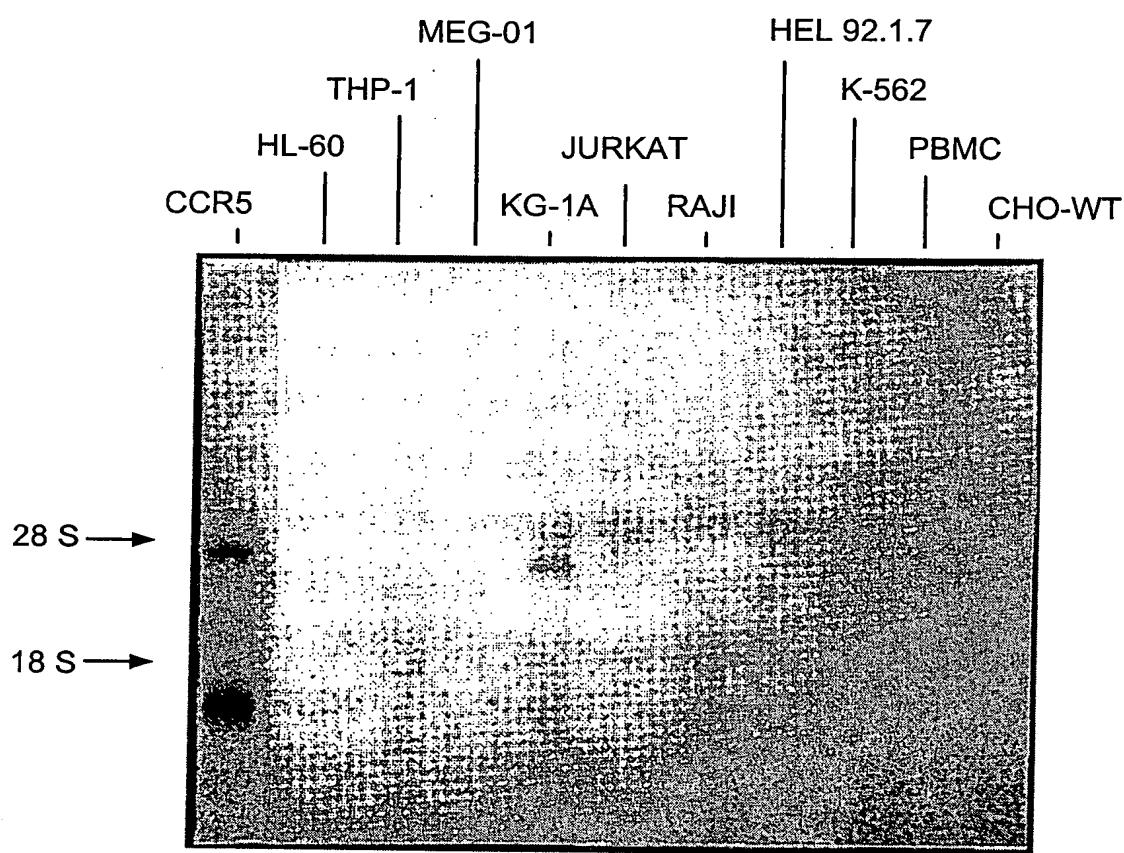
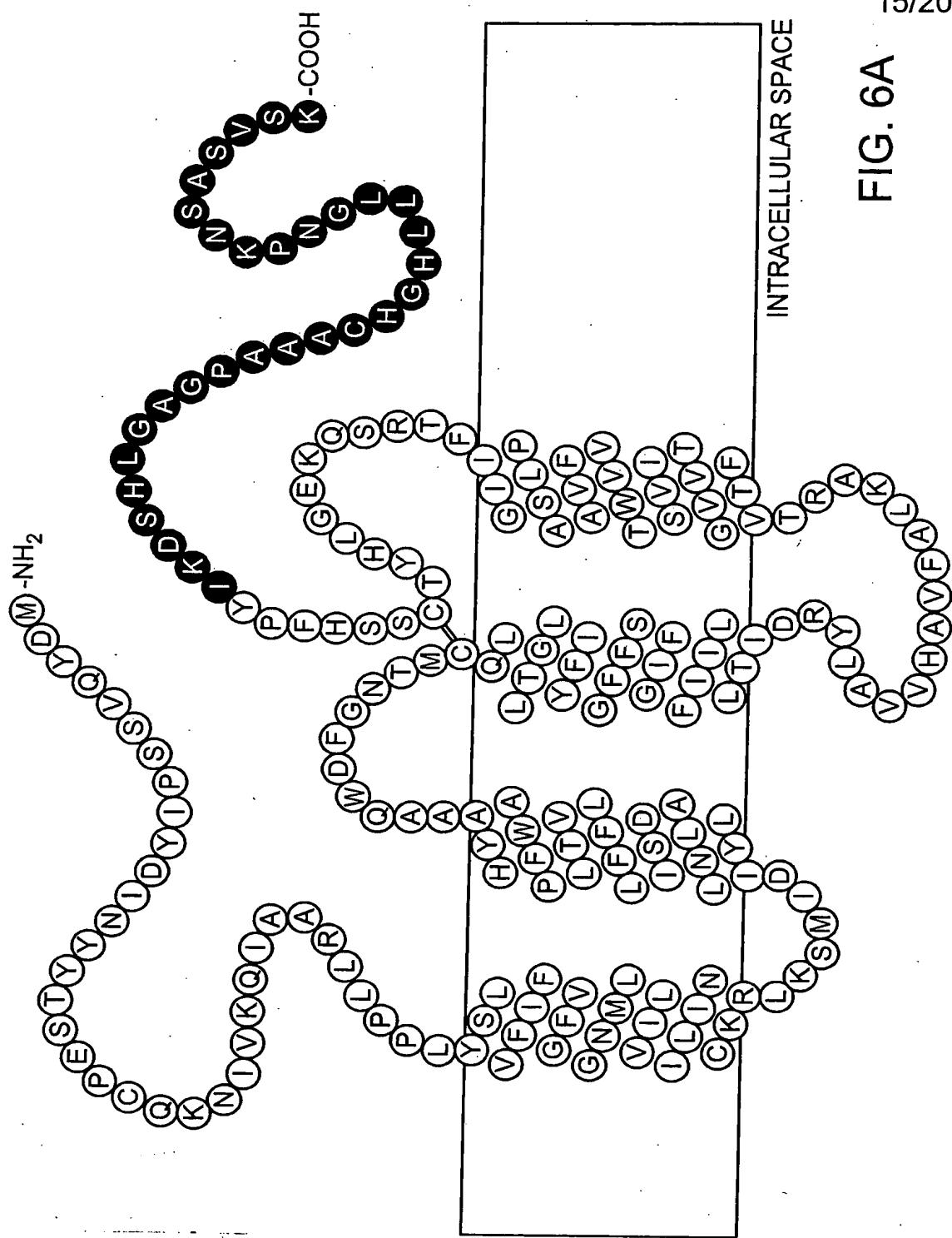


FIG. 5

FIG. 6A



CCR5 F P Y S Q Y Q F W K N P Q T L K I V I L G L V L P  
TTTccATACAGtcaattctggaaatttccagacATTAAAGATAAGTCATCTGGGGCTGGTCCCTGCCG  
 $\Delta_{ccr5}$  F P Y

deletion

CCR5 L L V M V I C Y S G I L K T L L R C R N E K K R  
CTGGCTTGTCATGGTCAATCTGCTACTCGGAATCCTAAACTCTGCTTCGGTGTGCAAATGAGAAGAGG  
 $\Delta_{ccr5}$  A A C H G H L L L G N P K N S V S K \*

FIG. 6B

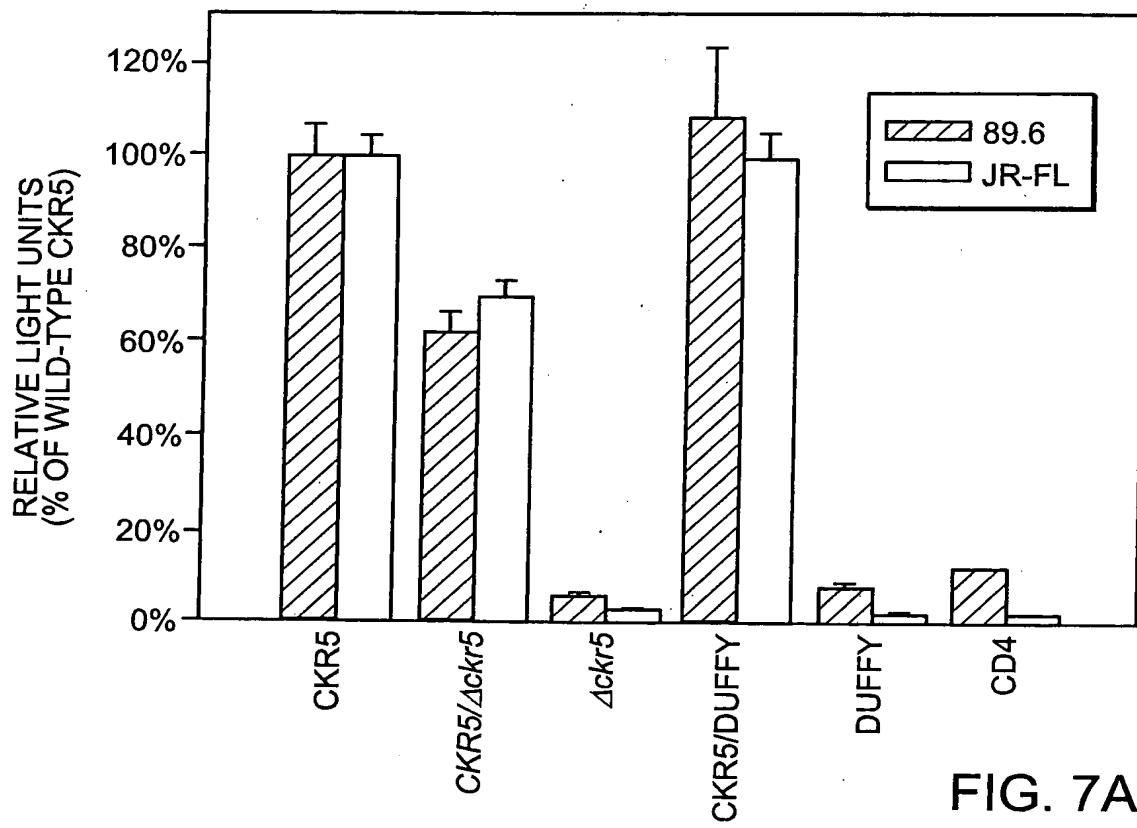


FIG. 7A

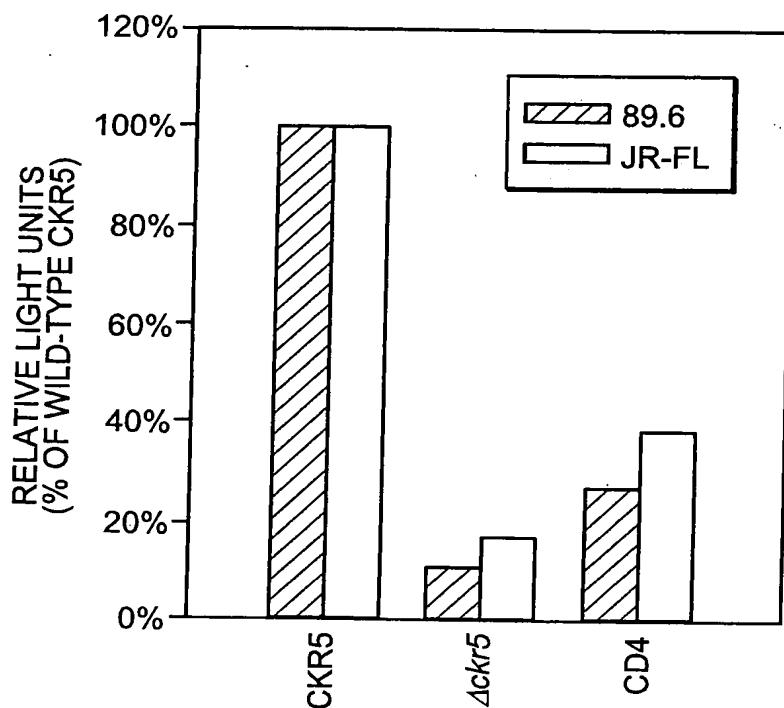


FIG. 7B

18/20

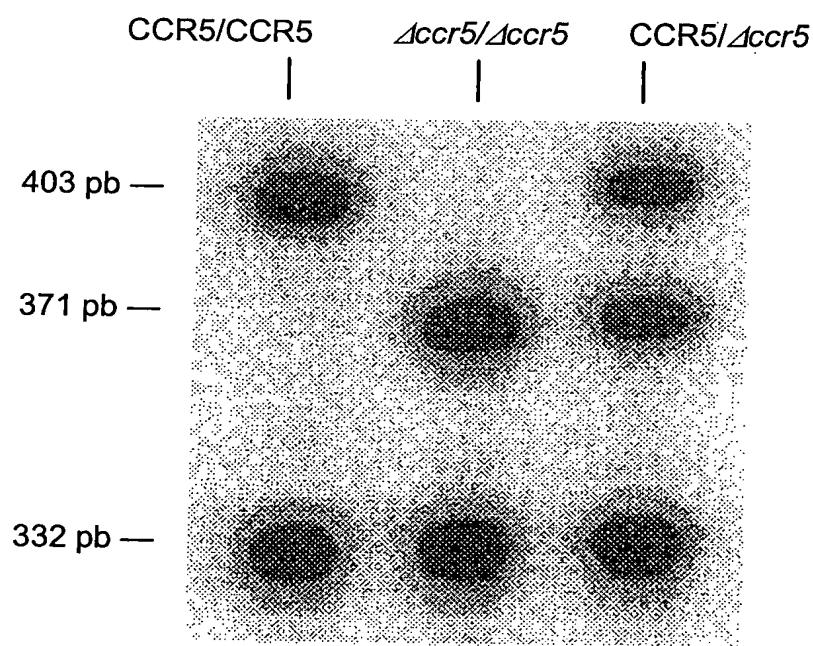


FIG. 8

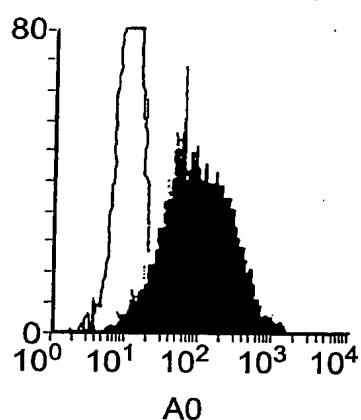


FIG. 9A

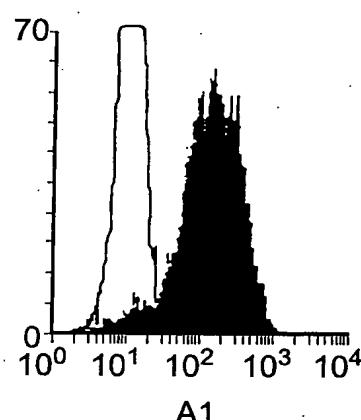


FIG. 9B

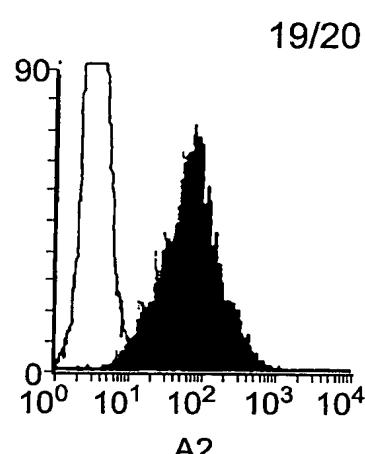


FIG. 9C

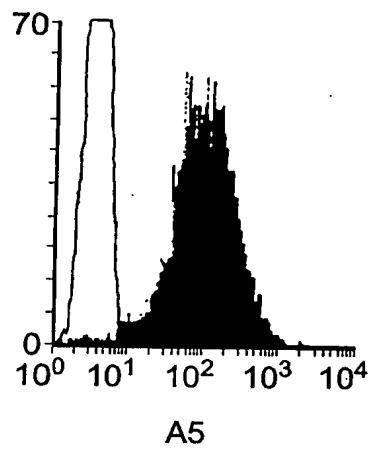


FIG. 9D

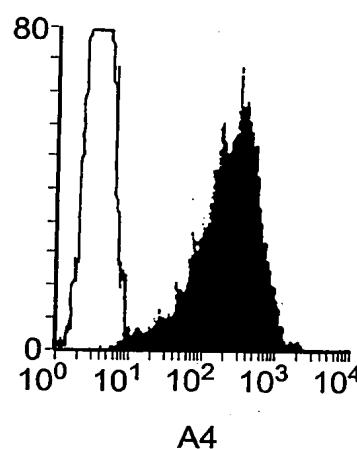


FIG. 9E

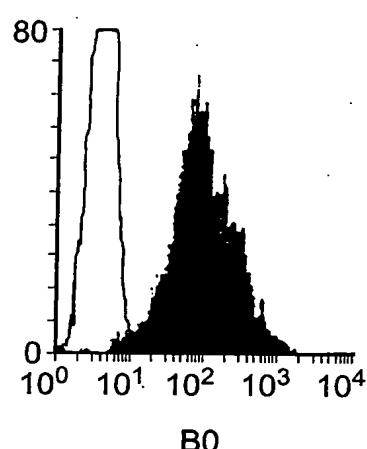


FIG. 9F

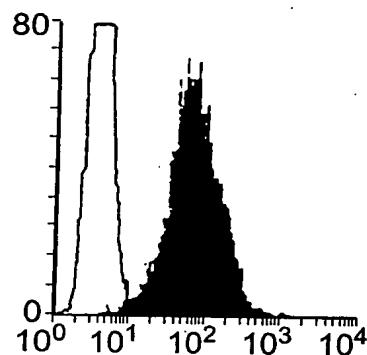


FIG. 9G

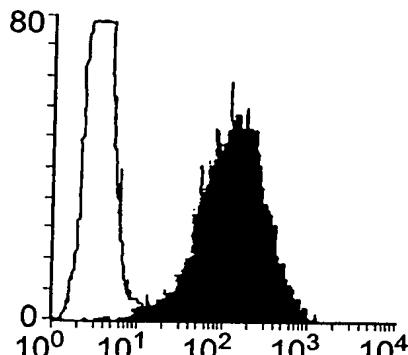


FIG. 9H

20/20

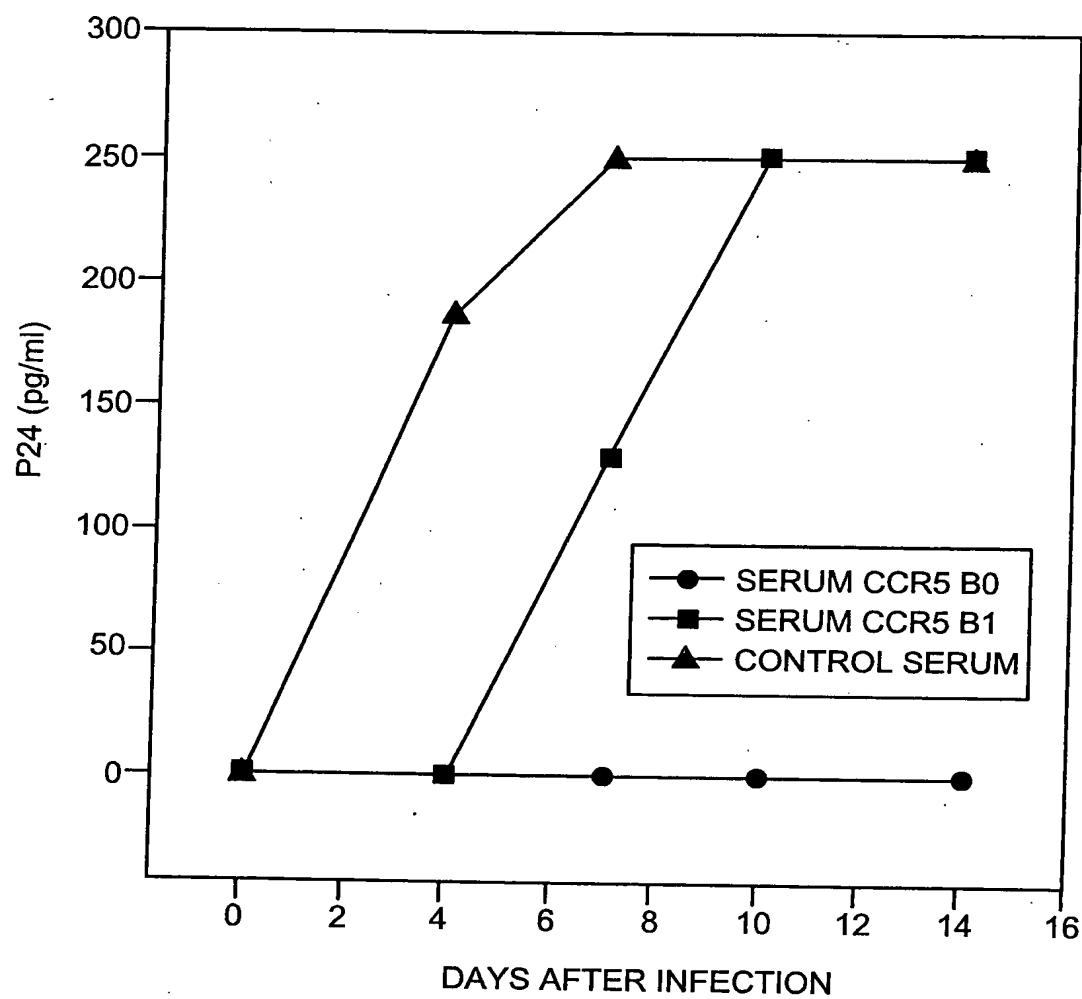


FIG. 10